Capacity charge and discharg circuit with overvoltage pr tecti n

Patent Number: DE19844145
Publication date: 2000-01-05
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Requested Patent: DE19844145
Application Number: DE19981044145 19980925
Priority Number(s): DE19981044145 19980925
IPC Classification: G06K9/52; H01L27/08; G06K9/28; H01L23/62
EC Classification: H01L27/07F4, H01L27/02B4F2
Equivalents:

Abstract

The circuit has a first FET (M1) which charges a capacitance (CPO) to a first potential (VDD) and a second FET (M2) which recharges the capacitance to a second potential (LL). A diode (Dp1,Dp2), operated in a high-resistance direction, is connected to the first potential between the drain-source connections of at least one of the transistors.The diode is formed by the doped area of the drain-source area of the transistor, with the area surrounding the doped area. Preferably, both transistors are p-channel FETs. A resistor is formed between the capacitance and the drain-source area of the FET.

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number (Emperor's year): 08305832 A

(43) Date of publication of application: 22 . 11 . 96

(51) Int. Cl G06T 1/00
G01B 7/00
G06T 7/00

(21) Application number: 07112728

(22) Date of filing: 11 . 05 . 95

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(54) FINGERPRINT INPUT DEVICE

(57) Abstract:

PURPOSE: To provide a fingerprint input device which is small-sized, thin, and lightweight, and facilitates economization.

CONSTITUTION: The difference in electrostatic capacity from a main plane 11 which a finger print should be brought into contact with or put close to, corresponding to unevenness consisting of the valley line 18 and ridge line 19 of a fingerprint pattern, is utilized to electrically detect the electrostatic capacity corresponding to the unevenness by using electrodes 12 arrayed on the main plane 11 at pitches narrower than the line width of the fingerprint. Thus, the need for an optical fingerprint input means which is large in size and expensive is eliminated to constitute the fingerprint device which is small- sized, thin, and lightweight, at a low cost.